Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

2. Ciliated Protozoa may be formed indifferently from such zoöglœa masses, or from the substance of Amœbæ (pp. 113–118), or from encysted Euglena (pp. 110–113), or from the eggs of Macrobiotus (pp. 138–144) and rotifers (pp. 44–45).

3. Diatoms, even, may arise *de novo* from the cells of a parasitic alga (pp. 158–168); or Actinophrys from the substance of Nitella cells, or from Euglena (p. 224). The latter, indeed, seems to be something of a protoplasmic Pandora's box from which emerge Peranema (p. 13), Polyphagus (p. 224), Olpidium (p. 226), Chytridium (p. 232), Chlamydomonas (p. 234), Amœba (p. 235), or higher algæ like Vaucheria (p. 188) and Conferva (p. 191), while its own protoplasm may be only the metamorphosed substance of an algal cell (Œdogonium).

As to the method employed in obtaining these remarkable findings there is little said; isolation and continuous observation were deemed unnecessary and fruitless. Tap water with hay for example, was heated to not more than 125° F. and left to stand. A scum developed after a few days, in which, from day to day, various types of organisms, including monads, fungus germs, Actinophrys, and even ciliates were observed, all having developed, he concluded, from "embryonal areas" of the scum. These observations are seriously presented as proving the heterogenetic origin of the different forms. Answering a criticism from certain "learned societies" that had refused to accept his conclusions based upon this method of observation, Bastian states: "I submit that such evidence as has been brought forward in this volume is the only kind of evidence that can be adduced in proof of heterogenesis" (p. 344), and this statement, if limited to his use of the term heterogenesis, is one and the only one in which we heartily and unqualifiedly agree with the author.

G. N. C.

Herrick's Home Life of Wild Birds.[1]—In the four years since the appearance of Professor Herrick's earlier work under this title, he has been able to extend his studies of nesting habits to a larger number of species and individuals, and in the present revised edition of his book "much has been re-written, and forty-eight new illustrations have been added to the text in place of a smaller number omitted. The first three chapters have been materially changed;

---

[1] Herrick, Francis H. *The Home Life of Wild Birds. A New Method of the Study and Photography of Birds.* New York and London, G. P. Putnam's Sons, 1905. 8vo, xxv + 225 pp., illus. $2.00.

Chapter XI. on Nest-Building is entirely new, as are also in large measure those which follow on The Development and Care of the Young and on Life and Instinct." The size of the volume has been reduced so as to make it serviceable for field use.

For the serious and minute study of the life of birds at their nests, the author's "method" has its great advantages as well as its limitations. A small tent, described fully in Chapter III, "Tent and Camera," is erected within arm's length of the nest to be studied and the observer is enabled to watch the activities of the birds through a small window cut at the proper height in the tent-wall. The camera is also used from the shelter of the tent. In cases where the nest cannot be conveniently reached from the ground it is removed together with the nesting-limb and set up in a favorable spot, where it may be readily observed from the tent. The instinct of the parent birds to care for their young is so strong that they soon return to their charges and, finding that no harm comes from the tent, they quickly learn to disregard it entirely. It is important to note, however, that such liberties may not be taken with a nest until the young are hatched and are a few days old, for if disturbed earlier than this the old birds will desert. For this reason the very early life of the nestling cannot be so well studied by this method. Professor Herrick has used his "method," with good judgment and in but "four or five cases when the nest with its supports has been displaced . . . . have the young come to grief, in the course of five years' work."

The first three chapters of the volume are given to an exposition of the "method," then follow chapters on the nesting habits of the robin, the cedar-bird, the red-eyed vireo, the bluebird, the catbird, the nighthawk, and the belted kingfisher, with photographic reproductions of the various activities that take place at the nest. The remaining chapters are of a more general nature and treat briefly of nest-building, the development and care of the young, life and instinct, and the instinct of fear in young birds. From his studies of a number of species, the author has come to regard a large part of the activities of nesting as instinctive. "Birds seem to follow one line of conduct, whether it be building nests, sitting over eggs, or brooding and tending the young, until their instinct in any given direction has been satisfied, thus normally completing one term of the series before passing to the next in sequence . . . . Each term of the cycle is capable of analysis into many minor components, differing not only in the sexes, but in different species, and subject to change in different individuals . . . . One instinct may be overdone, as when a bird like the phœbe builds more than one nest, in which case her building instinct is apparently not satisfied by the usual exercise, or another may be scamped, as when swallows, house martins, or swifts desert their young in order to start on their migrations. When one instinct has been satisfied, wild birds must obey the next in sequence, which seems to possess them with the force of a resistless passion."

Apart from its interest as literature, the book from a purely scientific point of view, contains much of value with regard to the habits of certain of the species treated. Thus the nighthawk is found to feed its young, in one case at least, upon fireflies; the cleaning of the nest and removal of excreta is a duty regularly performed by the small birds studied; the parents do not attempt to feed each young bird in turn impartially, but often thrust food into a nestling's throat and withdraw it to try a second or a third young one until a bird with the "proper reaction time," *i. e.*, whose swallowing reflex is stimulated, is found. Brooding, or shielding the young from the heat, is part of the parents' duty on hot days, and it would be of interest to determine if this act is confined to birds that build open nests. Domed nests might be expected to dispense with the necessity for shielding the young from the sun's heat and possibly this may explain their origin.

The book itself is well printed and profusely illustrated. The style is popular but the author has used much judgment in his treatment of a field which "in the direction of both observation and experiment is of boundless extent, while on the side of inference it is full of pitfalls." The remarkable photographs by which the book is illustrated, add largely to its interest and value.

G. M. A.

Trouessart's Catalogus Mammalium, Supplement, Fasc. 4.[1] — The concluding part of this work, the first three fascicles of which have already been noticed in these columns (*Amer. Nat.*, vol. 39, pp. 603–605), lists the known living and fossil Cetacea, Edentata, Marsupialia, Allotheria, and Monotremata, and brings the total of known mammalian species up to 9381, an increase of 2157 over the number listed in the *Catalogus* of 1897–99. Among the Cetacea the great need for revisionary work is apparent and many of the species will doubtless be found to be merely nominal when more material can be

---

[1] Trouessart, E. L. *Catalogus Mammalium tam Viventium quam Fossilium. Quinquennale Supplementum (1899—1904)*. Fasc. 4. Berlin, R. Friedländer & Sohn, 1905. 8vo, pp. i–vii, 753–929. 8 Marks.